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COLMAN'S RURAL WORLD.

NORMAN J. COLMAN,
LIVI CHUBBUCK,
EDITORS.

PUBLISHED every Wednesday, in Chemical building, corner of Eighth and Olive streets, St. Louis, Mo., at one dollar per year. Eastern office, Chemung, New York City. Advertisers will find the RURAL WORLD the best advertising medium of its class in the United States. Address all letters to COLMAN'S RURAL WORLD, Chemical Building, St. Louis, Mo.

To double the circulation of the RURAL WORLD annually is an ambition of the Publishers. It requires new subscribers to do this, and in order to secure them, every present subscriber is constituted an agent to assist in that effort. The price of the RURAL WORLD is one dollar per year, which is cheap, considering the quantity and quality of the matter and paper used, but to accomplish our purpose we will allow every subscriber to send a new name with his own for one dollar, and he may add additional NEW names at fifty cents each, which is less than the actual cost of the paper. Renewals in no case will be received for less than one dollar unless accompanied by the name of a new subscriber.

Prof. W. W. Spilman of the Washington State Agricultural College and Experiment Station called at the RURAL WORLD office, in company with Mrs. Spilman, on Tuesday last, to renew his acquaintance with the editor, the two having been students together at the Missouri Agricultural College. Prof. Spilman was returning from the meeting of Agricultural Experiment Station workers lately held at Washington, D. C., where he read a paper giving the results of his investigations in connection with the cross-fertilization and hybridizing of wheat.

ALL READY.

The first real touch of winter is being felt. The mild weather lasted late. Many even complained that the weather was unseasonable, yet were all ready for this cold snap? Were the barn doors in condition to be fastened securely? Has the cellar been made proof against King Frost? Is there a good supply of wood on hand? If these and other provisions against the cold weather have not been made, don't postpone them any longer. If the cellar is well secured it will add much to the comfort of the rooms above it.

Then if stock is well sheltered less feed will be required and this will be an item of farm economy this year.

Recently when passing through a farming district, the writer was surprised to see many plows, harrows and other farm implements in the fields. Let them be housed. Last summer when passing on the train through Lower Canada, we saw a number of reapers protected from the rays of the sun by tarpaulins. It was Sunday, and of course the reapers were not in use. We then understood what was meant by thrifty Canadians. It was a fine farming section, and the buildings showed prosperity, yet the machinery the farm was having unusual care. Let all final preparations for the winter be promptly made, and the weather will not seem so severe. It is always coldest to the one not prepared.

THE CONVENTION SEASON.

The late fall and winter months find and will continue to find a large number of conventions held not only in agricultural interest, but in the interest of other pursuits. The reports of all these various conventions are of importance to farmers, because all commercial enterprises hark back to the farm. These conventions are for the most part addressed by representative men of the interest in whose advancement the body is convened. The speeches made will give the attitude of the convention assembled toward some of the various lines of farming, if not of farming as a whole; if not directly, at least in such a manner that the farmer will know in what position he should stand relative to the enterprise represented in the convention assembled.

The farmer should, as much as possible, attend the state conventions held for the advancement of the branch of farming in which he is most interested, and he should keep posted on the make-up of the official boards of other state agricultural organizations. These places of trust are reposed in the strong men of the state, and their acquaintanceship will be valuable.

At these several conventions the sections of a state especially adapted to special lines of agriculture will be reported. The successful growing and marketing of some special crop many times depend as much on locality with reference to transportation facilities as it does on climatic conditions and soil fertility.

Then in every such assembled body there will be men whose experiences have been adverse. It is well to hear their story. Some times men are the cause of the failures rather than the conditions attending the crop growth. The more this phase of the subject is studied, the more we are convinced that the man is a large part of the problem. It takes nerve and plenty of hard work to make success. Get

the convention men to give a little of this side of their special work. It will be a great stimulus to those who are ambitious, but yet have not had the reward of the evidences of success as have some of the leaders in various lines. Don't regard the convention reports as slow reading and something in which you are not personally interested; if you are not, you ought to be.

LOOKING LIKE SUCCESS.

It would almost seem as if the young woman who said to the writer, "I have nearly worn off the ends of my fingers to finish this suit to wear to the (Missouri) dairy meeting, that I might look like success," had been reading the talk of Vreeman, the great New York City transportation man. He advised a young man who was out of work to get a good suit, hat and shoes before he went to look for a job. The inference was that a man that "looked like success" was much more likely to succeed.

The young woman who expressed this desire to dress as she looked like success, is no follower of fashion and fads; but while living on a dairy farm and having the entire management of it, she felt there was an obligation resting upon her to make a good appearance. That she might be rightly judged, we wish it were no breach of trust to tell you of the magnanimous life this young woman lives for others, and yet it is done in a spirit of magnificent courage and good cheer. She did look like success, and her testimony is that she has been able to conduct her business without incurring debt, even during this year of drought.

The position taken by this young woman regarding her personal appearance is right. It is really good business sense; for course there are times when the old suit, even the patched suit, is honorable, but many times the ragged coat and old overalls are worn, not because there is no other suit, but simply because it takes some effort to don the better suit when starting to town.

The "chapple" style is contemptible, but a due regard for one's personal appearance is an obligation a man or woman owes to him or herself, to the family and to society.

The farmer who is neatly attired when offering the produce of his farm for sale in an adjoining town, will dispose of his goods more easily, and if what he is offering is of a high grade, he may even ask more for his goods, and be able to get his price, than can a man whose clothes are soiled and carry in them the odors of the barn and cow lot. The world has put a market value on appearance, and farmers must meet the demand or suffer loss.

THE FARMER'S THANKSGIVING DAY.

The crops of the field have been gathered and the fruits of the vine and orchard have been stored. The harvest in many sections of this middle west has been scant. The cribs that at this season other years have been full to bursting with golden ears of corn are almost empty, and in some places are empty. The cattle and hogs have been sent to market, and the fullness of which the seed time gave promise was blighted by drought and heat. Thanksgiving suggests that there be something for which to be thankful. And the failure of crops means hard times, much self-denial, and in some instances absolute want. Yet every intelligent farmer must realize the truth that there are worse things than hard times which compel an individual to put forth his best energy. It is the succumbing to hard times in such a way that hard times stay with one always, that is the fact to be most lamented.

Every man who has got on the top round of financial success, who was once at the bottom, delights much more in telling of his struggles to get on the lower round and of the battle it took to climb than of the easy time he now has.

Now, while we all wish that Thanksgiving Day would find us in the possession of many coveted blessings for which we think we could be truly thankful, may we not all find occasions for gratitude, even amidst what seems to be adverse conditions? At least, make the day pleasant for the children. We do like the old-time custom of family reunions on Thanksgiving. The merry pranks of the boys and girls will awaken laughter. And to be merry is good. Recall some of the games of your childhood and teach them to the children. Your hopes after all are the boys and girls of your homes. Too many strive to earn dollars for them, instead of keeping in sympathy with them in their youthful pleasures and aspirations.

Many farm homes will have an abundance and to spare. Let such remember those less fortunate. The opportunity to do good is occasion for thanksgiving. The man who lives for self alone, gain he ever so many dollars, stocks and bonds, but little when life ends. If Thanksgiving day has never before been a holiday in your home, begin with this, the first one of the new century, to commemorate this, our great national festival, and you will be given new hope for life's duties.

The surest way to make the farm profitable is to keep the land and animals in a vigorous condition.

GIVE THE FARM BOYS A CHANCE.

Editor RURAL WORLD: The words chance and opportunity in contrast with the word luck have been recently brought before the public in a very marked manner by some of our more advanced parents and periodicals. Nearly all of these writers have been in the same humble circumstances, and many of them were not as favorably situated as are many of our farm boys to-day. These writers in telling of their opportunities show how they accepted the chance they had or that they brought about by their personal efforts. Many times the beginnings looked very small, but they improved, and these men are now a credit to their employers, and are the pride of the localities where they reside, whether they are in commercial pursuits or engaged in farming.

These writers when recalling their former condition in life, and surveying the problems confronting our young men at the present time say emphatically that never in the history of the country has the chance or the opportunity for the boy been more in evidence than at the present, not even excepting the chance for the farm boy. But it rests with the boy to improve the chance when presented.

Other writers tell us that parents are to blame for the boys drifting away from the farm, by having the work never ending, and by not encouraging the educational life that looks to improvement with the advance of the times. The mental development of the boy in the agricultural schools will enable him to see the chance on the farm when presented and be prepared to improve the same.

There is one point in particular to which I wish to direct the attention of both parents and teachers, and that is to note the trend of the mind of the child during his play and hours of recreation. By way of explanation I will give an illustration that has come under my own observation.

A few years ago a man asked me, "What is your boy doing?"

I stated that he was attending the high school, that he had made up his mind two or three years previously to secure a position under the Government Civil Service. To prepare for the examination he made inquiries of his teachers and of some of the university professors as to the requisite branches necessary for qualification. Then I asked this man about his twelve-year-old boy. "Is he a good scholar and does he go regularly to school?" I asked.

"No," the man replied, "he is not much of a scholar." I then wanted to know if the boy delighted in stock and farm interests. The father said, "No, he has no interest in anything on the farm."

I told this man that he should watch his boy at play, but the father said, "He is too lazy to play."

A few months later I met this boy's teacher, who said, upon inquiry, "While the boy is not exceptionally bright, he is not a dunce, and has great interest in birds and their eggs and habitats." The teacher discovered the boy's trend of mind, which the parents had not done, and the latter expect the boy to be a farmer. My own boy before he was old enough to read was given magazines to play with. When looking at the pictures of the horses, cattle and farm scenes, such as he was familiar with in his own home, he would only glance at them, but the pictures of machinery he would look at for a long time, as if examining them in detail. His environment was the farm and he learned to do farm work willingly, but I never expected him to settle upon a farm, and he finally left it. The failure on the part of parents to recognize the bent of a boy's mind may be a reason why he leaves the farm.

JOHN BETHUNE.

Lancaster Co., Neb.

FARM CONDITIONS IN IOWA.

Editor RURAL WORLD: The winter is advancing on us and there has never been a time in the history of our country that equals the past summer and fall in regard to drought. Our creeks are drying up, and ponds and wells that had never been known to fail have at last succumbed, owing to the dried and parched condition of the earth.

There has never been such a commotion among farmers. Public sales are almost a daily occurrence, some with no other motive than to save what little feed is left to run their teams through to the next crop season. Many have sold their farms and are either leaving the country or moving to town. A good many people from states where land is much higher are taking the advantage of the low-priced farms in our country, and there have never been such an exodus from the farm to town as this fall has shown. Many to-day are wearing long faces from the effect of selling the old home that had been their happy abode for the greater part of their lives, and are to-day left out as wanderers, not knowing where to go, or crammed up in town under conditions not congenial with their past mode of living. There is no doubt but the drought this season has had its effect in causing a dissatisfied state of mind with many people who have spent many sleepless nights in trying to think of ways for bridging over to the advent of grass. But, without straying from the subject, too many people are retiring from the farm for their own good and the good of the country.

I am indebted to the courtesy of the Pan-American, is truly a wonder. The writer helped build and operate the first machine of the kind that ever went into grain in California. Of course many and valuable improvements have been made since then—1873 or 1874. The originator, although not educated, is one of the most profound thinkers a person is likely to meet. He was a poor rancher, but he furnished the brain work while a wealthy California banker provided the cash, and machines were manufactured at enormous profits. But other shops sprang up, and the banker and inventor could not sell smoothly together.

ing collegiate education, are turning their backs to the old farm home and seeking a professional life or a salaried occupation that calls them to the cities. Now the question is, Will it not in the near future produce the same effect that was felt by the southern farmers after the emancipation proclamation? The sons and daughters of the southern people had never been taught to work, and the exodus of the colored man into northern states left many of their fine farms to lie idle, and grow up in briars and native timber. As the minds of all seem to drift toward the more fascinating pleasure, coupled with the city life, will we not have to devise plans to make the farm home more of a magnet in the way of pleasure in order to keep the young on the farm? Many things enjoyed by the farmers' sons and daughters would be regarded as luxuries to those confined inside of city walls. The owning of fine driving horses, nice buggies and harness, being one's own boss, with the privilege of a day off whenever one feels like it, do not seem to quiet the fast-beating heart that leaps toward the city.

Davis Co., Iowa. JOHN H. CURL.

A TENNESSEE LETTER.

Editor RURAL WORLD: For some time past I contemplated writing a letter for the RURAL WORLD readers on this, my 66th birthday, if my life were spared. The birthday is delightful. Yesterday morning, with the mercury at 26 degrees, was the coldest of the season. There was no frost this morning. Our first frost we had Sept. 19, though nothing was injured. The second came Oct. 4, when all tender vines were partially killed. Up to this time we had plenty of fresh tomatoes from the garden for our table.

I was sorry to learn of the death of your aged and able correspondent and public benefactor, Judge Samuel Miller. I greatly miss his "Horticultural Talks," as published in the RURAL WORLD. They were always both interesting and instructive. But, like one of the great Bible heroes, "having served his generation, fell on his sword." And he was delivered to the fathers "like a ripe shock of corn in his season." He served the world long and well, and generations yet unborn may well rise up and call him blessed.

As stated in a former letter, I planted five rows of corn to test the value of a commercial fertilizer as compared with stable manure. The middle row had commercial fertilizer, the two rows on each side the stable manure. All were worked well into the soil before planting. Result: The outside rows yielded five percent more corn and 15 percent more fodder. The middle row "fired" during heat and drought, the outside rows not any, remaining all green to the ground until ripe.

Our wheat crop was quite up to the average. The price is about 70 cents per bushel. One farmer pastured a nine-acre field of oats till April 1, and then harvested 26 bushels per acre. The quality was fine. Our early Irish potatoes were good. The late crop was nearly a failure. The late Irish potatoes do not generally succeed well in the south. But the sweet—oh, my! I dug 25 bushels from three rows about 30 feet long.

Do pumpkin seeds make cows shrink in the yield of milk? I was told that they would. So I decided to test the question? I fed two cows and removed all seeds for five days. Then for the next seven days I fed all seeds with the pumpkins. For eight consecutive days the difference in yield was but one-half a pound per day, and that only on one day. The difference between maximum and minimum yield was one and a half pounds—and this was on the first and last days of the test. The roughage fed during the twelve days' test was: Morning, sweet potato vines; noon, Lima bean vines; night, millet hay. The vines were taken to shelter before they were damaged by frost.

MR. F. C. JOHNSON tells some ways of "How to Enjoy Life on the Farm." In a recent RURAL WORLD, and asks if I remember my old-time correspondent of Wyoming, New York, E. F. C. of Center Table. Oh, yes, very well and pleasantly. How strange that Edith should come away out west, and that we should receive new acquaintanceship through another paper!

THE DAILY WEATHER MAP of the summer and autumn has been an interesting study in several respects. On Oct. 19, 22, 23 and 26 there was no precipitation reported from 28 signal service stations, all east of the Rocky mountains from the Gulf to the British possessions and east to the great lakes and the Ohio valley.

FARMERS' BULLETINS.—I have just received the following Farmers' Bulletins: Tree Planting on Rural School Grounds; The Angora Goat; Emmer, a Grain for the Semi-Arid Regions; Sorghum Syrup Manufacture. All these publications are good authority, and are upon pertinent subjects. The amount and variety of useful knowledge which is furnished by our government to the general public is truly encouraging. So much free literature enables the common farmer to be quite intelligent in his profession. How thankful we should be for the privileges we have in these times of light and liberty.

JOHN BETHUNE.

Lancaster Co., Neb.

WARM ON NATURE'S FORCES.

In a recent address, Prof. Willis L. Moore, Chief of the Weather Bureau of the U. S. Department of Agriculture, made reference to the attempted prevention of hailstorms by the use of explosives from specially designed cannon. The professor said:

"There is a marked difference of opinion as to the effectiveness of cannon firing with the manufacturers and many grape growers on the one side and the scientists of America and Europe on the other. The former maintain that hailstorms can be prevented in the manner described, while the latter claim that the force exerted by the explosives is infinitesimal as compared to the forces of nature that are exerted in hailstorms for formation and that experiments conducted by the adherents of the cannoneering process themselves have not produced convincing results. The number of thunderstorms from which hail is precipitated is but a small per cent of the actual number of thunderstorms. In most localities that are affected by hailstorms, the frequency of the occurrence is not great enough to warrant the use of explosives. In the United States a small percentage of the thunderstorms from which hail is precipitated is but a small per cent of the actual number of thunderstorms. 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The Dairy

DAIRY CONVENTION DATES.

MINNESOTA STATE Butter and Cheese Makers' Association, St. Cloud, Nov. 20. J. K. Bennett, Secretary, Clinton Falls.

WISCONSIN DAIRYMEN'S ASSOCIATION, Menomonie, Feb. 12-16, 1901. G. W. Burchard, Secretary, Ft. Atkinson, Wis.

THE MISSOURI DAIRY MEETING

At Palmyra, Mo., Nov. 7-9, 1901.

It may as well be stated at the outset that the twelfth annual meeting of the Missouri Dairy Association was the most largely attended, enthusiastic and best convention of the kind ever held in the state; and that the Missouri town that is ambitious to beat, or even equal, the record made by Palmyra, had better begin moving in that direction right off.

At the time set for the opening of the first session approached, some of those present, having in mind former experiences, suggested that as there would be few present it would be better to defer the opening session until afternoon; but the officers concluded that from the "looks of things" there would be an audience on hand at the appointed time for the opening of the convention—and there was—one that filled the beautiful courtroom of Palmyra's new court house.

Disappointment was felt by many that Governor Colman was not present to act as presiding officer, as he had done for a number of years past. Illness had prevented his attendance at the convention. H. C. Goodrich, first vice-president, Calhoun, Mo., took the chair and filled it in a creditable manner.

Dr. E. K. Miller, presiding elder for the Hannibal district invoked the divine blessing on the assembly and the industry which had brought it together. The prayer was an earnest appeal for heavenly help and guidance.

The Honorable James W. Ousley, Mayor of Palmyra, in behalf of the city, greeted the visitors as the city's guests, and manifested very clearly his personal and official pleasure in extending the hospitality of the city to the dairymen men of the state. He referred to the fact that Palmyra had asked for the convention of a year ago, and had been much disappointed in not getting it; so that now when their wish was being gratified their hearts were doubly glad. "We feel," said Mr. Ousley, "that you will do us good, and we will try to do you good. I here and now place in your hands the keys of the city to use as best suits your pleasure. In the matter of entertainment—especially refreshments—liquid—we will endeavor to please all tastes. Some of our citizens will take you to our famous spring which gives forth water—pure, clear and sparkling. If you do not use that article to excess, then you will be escorted to our immense dairy where you may 'fill up' on buttermilk—and should the foamy product of the cow, after it has been 'shook' fail to reach the spot—then—well—then—if nothing else will 'set well' on your stomachs, we'll supply you with just a little bit of 'liquid disturbance.' The police force will be locked up and you will be immune during your visit to the City of Flowers to an introduction to anything that has the appearance of a bleak and lonely home with iron bars staring you in the face. I take you under my arm and pledge you my life and sacred honor that you shall be protected. But I was not billed for a speech—but just to welcome you, and as you certainly understand that the lips have not spoken fittingly the heart warms toward you and bids you welcome—thrice welcome. I will now introduce our distinguished fellow-citizen, the Honorable Thomas W. Hawkins, who has ably and well represented Marion county in the Missouri legislature for three terms, who will further convince you that you are in the country of your friends."

Judge Hawkins was greeted with hearty applause, Missouri dairymen recognizing in him a man who had rendered the dairy industry of the state a most valuable service; though he disclaims the credit, it was due to his interest in and effort to secure the enactment of the Dairy Husbandry bill by the Missouri Legislature at the last session, that the measure was passed and, in consequence, that we have a chair of Dairy Husbandry in the Missouri Agricultural College where the sons and daughters of the Missouri farmers can get needed instruction in the art and science of dairying. Judge Hawkins was chairman of the Committee on Ways and Means, and as such carried a heavy load of official duty; yet he shouldered the additional task of working this bill through the flood of other bills that impedes the passage of all legislation. Let Missouri dairymen not forget T. W. Hawkins in this connection.

The Judge made a most excellent address, which we would like to print in full.

"I do not feel," said he, "that I can emphasize the welcome extended by our honorable mayor. I esteem it a genuine pleasure to extend to you old-fashioned Marion county hospitality, famous everywhere. No stranger was ever turned away from our gates. Palmyra and Marion county are noted as the homes of the most generous people on earth. We appreciate to the fullest importance the great industry you represent; your product is in demand the world over—never a drug on the market, and your calling the most honorable among men. Abel's offering of the flock was most pleasing to the Lord. There is no more profitable calling

Dyspepsia

From foreign words meaning bad cook, has come rather to signify bad stomach; for the most common cause of the disease is a predisposing want of vigor and tone in the organs.

No disease makes life more miserable. Its sufferers certainly do not live to eat; they sometimes wonder if they should eat to live.

Mrs. S. H. Walls, Hillsboro, Ohio, who was greatly troubled with it for years, could not eat anything without much suffering; and Peter E. Gaare, Eau Claire, Wis., who was so afflicted with it that he was nervous, sleepless and really sick most of the time, obtained no relief from medicines professionally prescribed.

Like thousands of others, they were completely cured by

Hood's Sarsaparilla

according to their own statement voluntarily made. This great medicine strengthens the stomach and the whole digestive system.

HOOD'S PILLS cure constipation—25 cents.

in our famed state with free water and free grass, and with the herdsmen's only duty to protect his herds from storm."

"Missouri is alive to the dairy interests. As evidence of that fact the last legislature created the chair of Dairy Industry in our State Agricultural College, and for its passage you have your secretary, Mr. Chubbuck, and Senator Heathier, of this district, especially to thank, for without their earnest efforts, owing to the lateness of the hour at which it was introduced, it could not have become a law.

"Missouri dairymen have a right to be proud of their state. Where it has come in competition with other states at the various world's expositions, comparison has not made them hang their heads in shame. At the Pan-American Exposition Missouri competed with Iowa, Wisconsin, Vermont, New Hampshire and other states—all old in the production of butter and cheese, and yet this state captured a number of premiums. Missouri scored only one-fourth of one point less than Iowa, the greatest butter producer in the nation.

"Missouri is boundless in her resources, but richest of all in dairy possibilities, with her salubrious climate, abundance of feed, pure water and good transportation facilities. What, then, is there to deter you and thousands of others from embarking in this occupation?

"Though not born in Missouri, I have lived in the state a long time and I am proud of her, but prouder of her people. They are equal to any task set for them; they never fail. I am proud of what Missouri dairymen accomplished at the Pan-American, but they must do yet better at the St. Louis World's Fair in 1903. Are you willing that Missouri shall occupy the second place in dairying? Every Missourian should bring every energy to put his state to the front not only in dairying, but in all lines."

J. L. Erwin, in the absence of Gov. Governor Colman, was asked to respond to the address of welcome. He had expected, after learning that Gov. Colman would not be present, that Vice-President Goodrich would perform the duty now suddenly thrust upon himself. He then commented on the large number of gray heads in the audience, and called upon the young men and women, the boys and girls, to get into the active work of the Association. He, with others who had been identified for years with this work, must soon drop out and younger men take their places. At least the boys and girls should be present at these meetings to get inspiration from listening to the eloquent words such as we have just heard from Judge Hawkins.

He, too, was proud of what Missouri dairymen had done at the Pan-American Exposition, and wanted to emphasize the fact that the success obtained there is the result of the organized work of the Missouri Dairy Association. The world had not heard very much about the Missouri dairy industry because our development had been in the direction of the private dairy farm rather than in that of the public creamery, and it is the latter that attracts notice; but when Missouri butter, whether creamery or dairy, is scored along with that from other states, it is found that our dairymen have equal skill with those of other states, and that our state possesses at least equal advantages for the production of the best butter with any state in the Union.

Adjournment was here taken for dinner.

Immediately upon re-assembling at 2 o'clock, Judge Hawkins introduced the following resolution, which was unanimously adopted:

Whereas, Mr. Levi Chubbuck, editor of COLMAN'S RURAL WORLD, and the present secretary of this association, has, at the request of the butter and cheese dealers and makers, the manufacturers of and dealers in dairy supplies and breeders of dairy cattle, announced himself as a candidate for the position of Superintendent of Dairy at the St. Louis World's Fair of 1903; therefore,

Resolved, That we, the members of the Missouri Dairy Association, in convention assembled, recognizing in Mr. Chubbuck an intelligent, enthusiastic and competent dairyman, who has labored continuously and effectively for years to promote this great and growing industry in our state, hereby heartily endorse his candidacy and respectfully request his appointment to this position.

Resolved, That we believe the great stimulus recently given the dairy interest in Missouri will be further augmented by the appointment of a Missourian as Dairy Superintendent for the World's Fair and for this additional reason we urge the appointment of Mr. Chubbuck.

(To Be Continued.)

ECONOMIC RECORDS OF HOLSTEIN-FRIESIAN COWS.

From July 6 to November 1, 1901.

Editor RURAL WORLD: This class of records are made in connection with official testing by experiment stations. Reports are made of four weeks' feeding, but to economize space we give only that of the last week—the week of the official test. During this week the cow is fed not less than during the previous week, and for the last two days not less per day than during the earlier days of the week.

In the following list the kinds and total amounts of food and products are for seven consecutive days.

Topsy Barber, 49655, age 3 years 7 months 4 days: Food consumed—114.5 lbs. grain mixture (3 parts gluten meal, 2 parts bran, 1 part cottonseed meal), 29.5 lbs. oil meal, and pasture. Products—Milk, 456.3 lbs., containing 12,952 lbs. fat.

Clothilde Eva, 56277, age 3 years 3 months 4 days: Food consumed—47.96 lbs. oil meal, 24.8 lbs. peat meal, 6.65 lbs. oil meal, 22.47 lbs. ground oats, 130 lbs. oil meal, and pasture. Products—Milk, 456.3 lbs., containing 12,952 lbs. fat.

Clotilde Eva, 56277, age 3 years 3 months 4 days: Food consumed—47.96 lbs. oil meal, 24.8 lbs. peat meal, 6.65 lbs. oil meal, 22.47 lbs. ground oats, 130 lbs. oil meal, and pasture. Products—Milk, 456.3 lbs., containing 12,952 lbs. fat.

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Horticulture

A NEW TRUSTEE.

Of the Missouri Fruit Experiment Station, T. M. Culver, of Koshkonong, Oregon county, has been appointed by Governor Dockery a member of the board of trustees of the fruit experiment station, located at Mountain Grove, for a term of six years, from November 15, 1901. Mr. Culver is one of the largest fruit growers of south Missouri, owning and operating one of the most extensive apple and peach orchards in Oregon county.

HORTICULTURAL TALKS.

A RURAL WORLD reader from Lebanon, Mo., asks me some questions regarding his orchard that could be more satisfactorily answered had he stated whether or not his trees are all apples; whether old or young; what varieties and if in cultivation or not.

If trees are old and in sod, the trouble is, no doubt, caused by the drought. The writer has noticed several orchards this season in this vicinity, which, under the same conditions show that same prevailing feature. The ripening of seed is the greatest tal on any plant or tree, and this accounts for his trees beginning to die at that point of maturity.

The orchard in question has, perhaps, not had proper attention in the way of pruning, in which case I would advise the removal of all interfering limbs and suckers; though in cases where it is necessary to remove several large limbs from one tree it is best not to do it all at once. Take off part of them this season and the rest the next season. The effect being just the reverse of that from cutting a dog's tail off by inches. Cultivate the orchard thoroughly each season and avoid growing crops that tax the soil, which would exclude all grain. Cowpeas are the best crop to grow in orchards. Any forage crop is all right, providing seed is not allowed to ripen.

WE MUST SPRAY.—In order to get perfect fruit it is necessary to spray, and a knowledge of this work can best be gained by visiting orchards while being sprayed. Operators will be only too glad to give information and thereby encourage what should be universally encouraged.

A wash with strong soap suds is preferable to whitewash, though perhaps neither has any virtue as a cure. The suds should be used as a preventive.

Lime used in the way mentioned would be of no noticeable benefit, though not injurious. Better give each tree a wagon load of manure, not around the trunk of the tree as many would do, but scattered over a circle with a radius of 15 feet.

THE APPLE TREE BORER works in the trunk of the tree, and can only be destroyed by finding his hole or run and gouging to death with a stiff wire.

The peach tree borer works in the roots and can be kept out by putting lime or ashes around the base of the tree.

SEEDLESS PERSIMMONS.—A little box containing two persimmons came to me by mail a few days ago sent by H. Callaway of Morgan County, Ill., and with it came a note as follows: "When you eat these persimmons save the seeds." I knew at once what this meant, and was not surprised to find them entirely seedless. They were about medium size, of very good quality, and all things considered, a little bit better than any seedless persimmon that has so far come to my notice.

WINTER PROTECTION.—It is now time to think about protecting the tender and half-hardy shrubs, etc. Although it is best not to give protection until we have had a pretty hard freeze, and we have good reason to believe that severe weather is close at hand.

The best way to protect any plant is to lay it flat on the ground. If this can not be done, take a basket or box of the right dimensions for the plant to be protected, being careful that the latter has good ventilation. Fill about two-thirds full of forest leaves and invert over the plant. The object of such protection is to avoid sudden changes either in moisture or temperature.

Roses should be pruned in the fall, that they may be more easily protected. Many people have an idea that buds of fruit trees can be saved by wrapping limbs with paper, cloth, etc. To these I will say that this is entirely erroneous. The only way that buds may be saved is that would otherwise freeze, is by bending limbs to the ground.

FALL PLOWING.—Those who intend planting small fruits, etc., next spring should plow the ground now. The ground will be in better condition in the spring and can be worked much earlier.

Strawberries especially, should be planted

ed early, and those intending to plant should use this precaution.

PLANT RASPBERRIES NOW.—Now is a good time to replant the raspberry patch. No doubt there are many who like myself find a good many plants missing. Tubs are nicely rooted now, and when the ground is in proper condition this work should be done.

PECAN-HICKORY.—There are a good many hickory trees growing on my place that are of no value, and I have decided to experiment on them with the hope that they may be made of equal or greater value than any trees I have. Most of these are too large to graft, as they are, and the plan is to cut them off about six feet high and graft on the sprouts of new summer growth.

The scions to be used will be taken from a certain pecan tree that bears a crop amount of extra large, thin shelled nuts. Results will be reported later.

North Alton, Ill. EDWIN H. RIEHL.

ILLINOIS HORTICULTURAL MEETINGS.

The forty-sixth annual meeting of the Illinois State Horticultural Society will be held in the Agricultural Building of the University, Champaign, Ill., December 10 to 12, 1901.

If present indications count for anything, this will be the largest meeting of the society which has been held for years, as letters from all over the state speak of a largely increased attendance.

The program will be filled by men of prominence in their respective lines in this and other states, and will include those practical and scientific subjects which are of timely importance.

The usual liberal premium list will probably bring out a fine show of fruit. The display of spraying appliances and horticultural tools which attracted so much attention last year will be a feature again this, and we are promised some of the latest and best things in this line.

Special rates have been secured at the hotels, and very complete arrangements made to furnish quarters at boarding and private houses, so that visitors can have any class of accommodations that they wish. This will be an unusually good chance to see the University of Illinois, and those having friends attending school will find this a good opportunity to visit them.

Members will be advised of the arrangements for railroad rates as soon as completed.

The program and premium list will be published early in November and will be sent to all members as soon as ready.

Others desiring copies should address the secretary, L. R. Bryant, Princeton, Ill.

District Meetings.—The three district societies will hold their annual meetings as follows:

The Central Society at Quincy, November 20 and 21, J. C. Blair, secretary, Urbana, Ill.

The Southern Society, at Carbondale, November 26 and 27, E. G. Mendenhall, secretary, Kimbundi, Ill.

The Northern Society, at Dixon, December 4 and 5, Jacob Friend, secretary, Nemoka, Ill.

Those interested in horticulture who cannot attend the state meeting should by all means go to the nearest of these district meetings. Programs may be had by addressing the secretaries as above.

FORTY-FOURTH ANNUAL MEETING

Of the Missouri State Horticultural Society, at St. Joseph, Mo., December 3, 4 and 5, 1901.

GREETING: For forty-four years this society has not failed in its annual meetings to lend its influence, experience and assistance to the fruit growers of the state. We have seen many ups and downs like all other institutions, but the wonderful advantages of our state have been continually presented to the public until we find Missouri known as one of the great fruit state of our nation. During the last few years the horticultural interests of this state have taken amazing strides so that we now see many parts covered with the most extensive orchards in the world.

This rapid growth imposes upon us the responsibility of these meetings for the purpose of fulfilling them. The grand crop of fruit this year and the good prices secured have awakened a new enthusiasm among the fruit growers, and we meet to make this enthusiasm a permanent feature, and to discuss any new aspects of our industry that have come to light in the last year.

We want these sessions to give voice to the combined wisdom of our fruit men and women. In order that it may do the most good we solicit reports, bits of experience, experiments, business facts, failure, successes, suggestions or papers on any topic, either in which you need information or can give us instruction. We therefore expect your good will and assistance.

A good program has been prepared and it will pay you to meet with us. The St. Joseph friends are prepared to take care of the society, and we look for the best meeting we have ever had.

RAILROAD RATES.—The railroads will give a rate of the certificate plan of one and one-third fares for the round trip. Pay full fare in coming and take a receipt for your ticket. Some roads sell through to St. Joseph, others only to connecting points, and on these lines you must buy to the returning points and then buy again from there to St. Joseph and take a receipt each time. Note this carefully.

TUESDAY, 8 P.M.
Call to order.
Music.

Invocation, Rev. C. M. Chilton.

Address of welcome, Mayor John Combe.

Response, The Possibilities of Fruit Growing in Missouri, Pres. N. F. Murray.

Music.

Summer and Fall Bulbs, Mrs. T. Lee Adams, Kansas City, Mo.

The Kitchen Garden, R. A. Brown, St. Joseph.

The Model Orchard and How to Produce It, W. T. Flournoy, Marionville.

WEDNESDAY, 9 A. M.
Call to order.

Invocation, Rev. W. W. Bolton.

Appointment of committees.

Culture in the Orchard, C. W. Halliburton, Moberly, Mo.

Beneficial Methods of Pruning, Wm. P. Keith, Mayview.

Pruning and Cultivating, Ralph Smith, Laclede.

Discussion.

Renewing Old Orchards, J. J. Bartram, Maryville.

Some Varieties of Apples, Good, Bad and Indifferent, G. P. Turner, Meadville.

Profitable Varieties for North Missouri, J. A. Durkee, Weston.

ed early, and those intending to plant should use this precaution.

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North Alton, Ill. EDWIN H. RIEHL.

ILLINOIS HORTICULTURAL MEETINGS.

Apples for South Missouri, Hon. T. B. Woodside, Salem.

Methods and Varieties Now and Thirty Years Ago, W. G. Gano, Parkville.

Good Missouri Fruit Lands, E. S. Butt, Mayview.

WEDNESDAY, 2 P. M.
Drought of '97, Freezes of '98, and Drought of '99, J. C. Evans, Hartie.

Fighting the Drought, D. A. Robnett, Columbia.

K. B. Wilkerson, Mexico.

Discussion.

Cold Storage, Wm. J. Murray, Armour Co., Kansas City.

Insects, Prof. J. M. Stedman, Columbia.

State Entomologist.

An Investigation of Root Rot, R. J. Bagby, New Haven.

Distribution, G. V. Fowler, Waterloo, Ia.

WEDNESDAY, 8 P. M.
Music.

Floriculture, Geo. P. Doran, St. Joseph.

Artistic Arrangement of a City Lot, Miss Edna A. Sutermeister, Kansas City.

Peaches in North Missouri, A. W. Bicomford, St. Joseph.

Recitation.

City Forestry, L. A. Goodman, Kansas City.

Music.

THURSDAY, 9 A. M.
Invocation, Rev. S. B. Campbell.

Report of Local Societies.

Crop Records from Counties.

St. Louis Exposition.

Reports of Committees.

Report of Secretary, L. A. Goodman.

Election of officers.

Invitations for future meetings.

Reports of Experimental Work.

Bitter Rot, J. T. Stinson, Mt. Grove Station.

Root Rot, H. von Schrenk, U. S. Dept. of Forestry, St. Louis.

Station and School of Hort., T. C. Johnson, Acting Prof. Hort., Columbia, Mo.

Legislation Against Insect Pests, Prof. J. M. Stedman.

Questions.

THURSDAY, 2 P. M.
Peaches in South Missouri, G. W. Hopkins, Springfield.

Peaches, Diseases and Their Treatment, Wm. B. Hoag, Columbia.

Pear Culture, J. J. Blakeley, Platte City.

Successful Plum Growing, E. L. Mason, Trenton.

Grapes for Profit, J. W. Fleeman, St. Joseph.

Strawberry Planting, Raising and Handling the Crop, F. H. Speakman, Neosho.

Irrigating the Garden and Fruit Patch, Ernest Mueller, St. Joseph.

Music.

Pear and Plum Varieties, W. I. Howard, Asst. Horticulturist, Columbia.

Music.

The Necessity for Practical Science in Elementary Schools, J. R. Kirk, Pres. Kirksville Normal.

Recitation.

Cane Culture, R. G. Rau, Supt. Parks, St. Joseph.

Music.

Ornamentation of Home Grounds, Miss Carrie Ruth Jackson, Columbia.

Report of Committee on Final Resolutions.

Adjournment.

Sessions will be held in the Odd Fellows' Auditorium.

Rates at the St. Charles Hotel will be \$1.50 per day; Union and Savoy, \$1 per day.

Premises—\$100 will be given on fruits and flowers.

L. A. GOODMAN, Secretary, Kansas City, Mo.

N. F. Murray, Pres., Oregon, Mo.

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Live Stock

DATE CLAIMS FOR LIVE STOCK SALES.

Dec. 10, 11, 12 and 13—Kirk B. Armour and Jas. A. Funkhouser, at Kansas City, Hereford cattle.

Dec. 12—C. D. Bellows, Maryville, Mo., at Sedalia, Mo., Shorthorn.

Dec. 15-19—Gudgel & Simpson, C. A. Staannard and Scott & March, Hereford, at Fort Worth, Tex.

Jan. 10-12—Sothams' annual Criterion Sale, at Kansas City.

Jan. 14, 15 and 16—Cornish & Patten, Osborn, Mo., and others, at Kansas City.

Feb. 10-12—Rodhead Anisty, Boyles and others, at South Omaha, Neb., Hereford cattle.

March 6-7—M. Forbes & Son, Henry III., J. E. Prather, Williamsburg, Ill., C. B. Dustin & Son, Summer Hill, Ill., T. J. Wornall, Mo., and others, at Chicago, Ill., Shorthorn.

March 12-13—W. F. Nichols, West Liberty, Iowa, Shorthorn.

June 12-13—E. McLane, Danville, Ind., at Indianapolis. Double Standard Pointed Durhams.

The "National Hereford Exchange" under management of T. F. B. Sotham, as follows:

Nov. 20-22, 1901—East St. Louis.

March 22-24, 1902—Chicago.

April 24-26, 1902—Kansas City.

May 27-29, 1902—Omaha.

June 24-26, 1902—Chicago.

POLAND CHINAS.

Nov. 28—J. B. Flink, Herborn, Ill.

ABERDEEN ANGUS CATTLE.

Dec. 3—International sale, W. C. McGavock, mgr., Chicago.

Feb. 4-6—Combination sale, W. C. McGavock, mgr., Chicago.

Jan. 22—E. E. Axline, Oak Grove, Mo.

April 10-11—Combination sale, W. C. McGavock, mgr., Kansas City.

June 10-11—Combination sale, W. C. McGavock, mgr., Chicago.

NATIONAL SHORTHORN SHOWS.

Dec. 2-7—Chicago, Ill.

NATIONAL HEREFORD SALES.

Dec. 3-4—Chicago.

STOCKMEN AND FARMERS' MEETING.

Editor RURAL WORLD: The meeting of the State Industrial Association under the auspices of the Missouri State Board of Agriculture, will be held in Chillicothe, Missouri, on Dec. 10 to 15. This meeting will be participated in by the State Poultry, Swine Breeders, Improved Stock Breeders, Sheep Breeders, State Grange, Improved Road and Horse Breeders' Associations and representatives from the state Horticultural Society and State Dairy Association. The state poultry exhibit will be held at the same time and promises to be the best ever shown in the state. Every farmer should attend this meeting and hear some of the best talent in the country.

The Western Passenger Association has granted an open one and one-third fare, good going December 9 to 13, and returning up to December 15. For programs or other information address

GEO. B. ELLIS, Secretary, Columbia, Missouri.

THE BOONE COUNTY, MO., SALE.

The Shorthorn cattle interests of Boone county, Mo., were given a decided impetus through the first public combination sale made at Sturgeon, Mo., by the Messrs. J. J. Littrell, Dr. J. F. Keith and E. S. Stewart, all of Sturgeon, and J. H. Cottingham of Clark, Mo. The largest portion of the cattle was contributed from the herd of that well-known breeder, Mr. J. J. Littrell, whose name has become familiar to our readers as one of the foremost breeders of central Missouri. Mr. Stewart consigned four head, Dr. Keith five and Mr. Cottingham four. The weather was clear and favorable and the attendance was gratifyingly large. The cattle were presented in just nice breeding condition and their good breeding and quality spoke well for the enterprise and judgment of the sellers. The auctioneers were Cols. James W. Sparks and R. L. Harriman. The former opened the sale with one of the best, most forceful and practical talk of his life. He was followed by Col. Harriman, a popular favorite who never disappoints his audience when talking upon the subject of improved stock. A few of the old-time breeders present were then asked to say a few words, giving their experience with Shorthorns. Mr. S. P. Emmons said that he had soon learned that he could not afford to raise common, low-bred cattle. He then sought information concerning the different beef breeds and finally settled on Shorthorns, as they had stood the test of time. He declared that he had found them profitable, quoting some very convincing figures. In conclusion he put considerable emphasis upon the point that the breeding of pure bred cattle was elevating to oneself, family and community.

Other veteran breeders followed, all of whom emphasized the value of the Shorthorn breed and the necessity of starting right.

The "star" bull of the offering was Mr. Littrell's Royal Crown, a straight Scotch of the Mine Tribe, sired by Scotland Crown 18894. He showed good breeding from end to end. Mr. J. S. Brown of Mexico, Mo., took him in at \$400.

B. F. Turner of Salina, Mo., got the top heifer in Mr. Littrell's Scotch heifer Butcher, of Hazelton 2nd, paying for her \$400.

In the offering were quite a number of March, 1901, calves that were sold singly. The 25 head sold brought \$5,155, averaging \$148.10.

Hood Farm Breeding Tire does it. Write for circulars telling how and why. Best remedy for failure to breed, failure to clean, irregularities in coming in season.

COTTON SEED MEAL AND LINSEED MEAL COMPARED.—Many feeders in the market for material of this

THE WINTER FEEDING PROBLEM.
By Professor H. J. Waters, Dean Missouri Agricultural College, in October Bulletin of State Board of Agriculture.

COMPARISON OF COARSE FODDERS.—In this connection it will perhaps be profitable to make a comparison of the feeding value of some of the common coarse fodders.

It will follow logically from what has already been said that the particular class of roughness that should be bought will depend upon what the farmer already has in this line and in the line of grains or concentrated food stuffs or what he intends to buy. For example, if a dairyman should happen to be so fortunate as to have a good stock of cotton seed meal, bran or gluten meal already laid in or have a large quantity of clover, alfalfa or cowpea hay, the coarse fodders to be purchased would naturally be selected from the opposite group, such as corn fodder, sorghum, oat straw, wheat straw, etc. The one to be selected would then be determined largely by the price and the convenience with which it could be gotten and fed. This, however, is a rare case.

There has not been enough careful experimental work done along this line to render such a comparison accurate, and it should be accepted as only a rough approximation.

The results of an experiment conducted here last winter will aid us some, although too much confidence should not be placed in the result of a single trial, however carefully made.

Four lots consisting of four yearling steers were each one fed six pounds of shelled corn daily per steer—considerably less than half feed—and all the roughness they would eat of the kind indicated below. The amount of corn eaten by each lot was exactly the same. The experiment covered a period of 80 days from Jan. 25 to April 19.

The amount of roughness eaten and the total gain of each lot and the average gain per day of each steer is shown:

	Roughness eaten, total pounds.	Aver. daily gain, per steer, lbs.
Timothy hay	4,543	318
Clover hay	5,719	640
Millet hay	3,941	119
Sorghum hay	4,727	166

sort inquire which of these feeds to buy. A glance at the table of digestible nutrients will reveal the fact that cotton seed meal carries a much larger amount of digestible protein and fat than linseed meal, and judged by this standard it should be the more valuable.

Some experiments made here in fattening two-year-old steers will throw some light on this point.

The experiment covered a period of 105 days with good grade of steers with a ration of three-fourths shelled corn and one-fourth old process linseed meal or cotton seed meal as shown in the table. The roughness was timothy hay.

Total gain, pounds.

1/4 linseed meal, 3/4 shelled corn.....1,220

1/4 cotton seed meal, 3/4 shelled corn.....1,309

Shelled corn alone.....903

The quality of all the hays was good. The corn was shelled and fed dry, the hay was fed dry and uncut.

The surprise is the poor showing made by the millet and sorghum hay as compared even with timothy.

It is safe to say that, omitting clover, alfalfa and cowpea hay, timothy would stand at the head of the list of ordinary coarse fodders left. It is equally true that in the ordinary year and particularly this year the price of timothy is so high as to take this hay out of the list that can be profitably bought for any class of stock, except possibly horses.

That is to say, there is not as much difference between the feeding value of timothy and several other coarse fodders as there will probably be between the cost price of this hay and the others, unless it has to be shipped a long distance.

For the ordinary uses, it is safe to say that good sorghum hay well cured and dry ought to be worth two-thirds as much per ton to feed as timothy, millet somewhat more than half as valuable, corn fodder about half as valuable.

Of the straws, the farmers fully appreciate the value of oat and flax straw, and are this year planning to an unusually large amount of wheat straw. So much has been said in favor of carefully saving and feeding all the wheat straw, and most of it has been sound advice, yet it has led some at least to over-estimate the value of this feed. Considerable baled straw has been sold at \$1.50 to \$6 per ton for feed in markets, where alfalfa or good clover could be laid down for \$1.50 to \$12, and good timothy at \$12 to \$14.

The price of the straw in such cases was entirely out of proportion to its feeding value. Even at this price, however, if corn fodder could not be gotten, or if one has not the room for storing and feeding the fodder, a limited amount of straw with alfalfa or clover will be a vastly better investment than timothy except for work and driving horses. In such a case the amount of clover consumed could be limited to much less than the appetites of the animals would require and let them stand to the straw. But to undertake to winter good cattle on straw alone or to make milk and butter from a small allowance of corn or wheat and straw will not be satisfactory.

WHEAT OR CONCENTRATED FEEDS.—It will perhaps enable us to compare the cost of a number of the common grain feeds better if they be reduced to approximately the present market price per ton, which is shown in the following table.

It is understood, of course, that these prices are only general and will vary from time to time and somewhat in different localities:

Per ton.

Corn at 60 cents per bushel equals...\$21.40

Oats at 40 cents per bushel equals...25.00

Wheat at 70 cents per bushel equals...23.33

Bran.....18.06

Shipstuf, shorts or middlings.....20.00

Cotton seed meal.....26.00

Linseed meal.....30.30

Gluten meal.....25.00

Kafir corn.....21.50

Of these feeds, corn, cotton seed meal, gluten meal and shipstuf are cheaper in proportion to their feeding value than the others. Corn even at the unusual price of 60 cents per bushel is cheaper than any of the other feeds at the prices named and must still form the basis of all rations that are made up economically.

This year, however, a number of the other feeds have not advanced in price in the same proportion as has corn, and it will be possible to use some of them with even greater advantage than most years.

When corn is selling at from \$0 to 40 cents per bushel, cotton seed meal and gluten meal have been fed with good profit at \$30 per ton, bran at \$13 (and in some cases linseed meal at \$35 per ton) to dairy cows, and in many cases to fattening steers. Corn at 60 cents is an advance of from 50 to 100 per cent over the prices named, whereas cotton seed meal and gluten meal have advanced between 25 and 30 per cent, bran less than 20 per cent. With these feeds profitable under those circumstances they certainly should prove more profitable this year.

At the same time corn must constitute the foundation of the grain ration for practically all purposes.

THE HEREFORD SALE.—It is almost impossible to look over the list of cattle to be sold in the Hereford Association's combination sale without growing enthusiastic over the magnificent lot offered.

The previous sales of this Association have offered nothing that can compare with it in quality. The grand sweepstakes winning cow is to be sold; the best two-year-old heifer shown this year is to be sold, and many others of this year's prize winners will go to the highest bidder.

Of course not all of the cattle to be sold are of the fancy kind, but we are assured that practically all will be extra good ones, and the 100 head will give abundant opportunity to satisfy both the wants



THE INTERNATIONAL LIVE STOCK EXPOSITION BUILDING.

of the agricultural press, but the amount of advertising warranted by the size of their herds is not sufficient to attract proper attention. Hence the establishment of the National Hereford Exchange.

The auction is properly the prevailing system of selling Herefords, and it has the advantage of definiteness and reliability. It concentrates a selection and there are competing buyers for every class of stock. The auction gauges the value of pure bred cattle. The breeder may delude himself privately, but the honest public sale dispels delusion. Men who make public sales receive their money in a lump sum and rely on cashing their cattle at a given time. The system also concentrates buyers, saving traveling expenses, thus enabling buyers to pay more, and the advantages named enables sellers to take less, the transaction resulting profitably to both. Therefore the auction system is the sensible business system and the one to be encouraged by Hereford breeders.

The business of the National Hereford Exchange is to receive consignments of Herefords and to sell them at public auction as often as offerings demand; sales to occur one or more days as may be required by consignments, and sales to be made at the leading cattle points, Chicago, St. Louis, Kansas City, Omaha, Denver, Fort Worth, Cincinnati, Baltimore, Sacramento, etc., etc. Each consignor to be the judge of what he shall offer, because there is no reason to consign ill-conditioned cattle to one sale when those to follow offer equally good opportunities, thus creating an incentive among breeders to hold cattle until they are in good condition before selling.

It goes without saying that Mr. Sotham, as manager of the National Hereford Exchange, will use every available means at his command to make this occasion a great success. By reference to his advertisement in the last issue of the RURAL WORLD, it will be seen that the Exchange will offer "registered Herefords for all classes of buyers; splendid specimens for the expert, cheaper ones for beginners." Profitable Herefords for everybody are to be sold strictly on their merits, without any attempt to exaggerate or deceive. As announced by Mr. Sotham some time ago, he has withdrawn from offer, all daughters of Corrector, until further notice, but for the special benefit of his southern friends, he will include in the St. Louis sale the only daughter of Corrector that he will offer the public during the next twelve months. Corrector's daughters of Mr. Sotham's raising will also be included. Everything promises to make this a most interesting and creditable event, and being the first sale at St. Louis, and made especially for southern buyers who are not educated to high prices, we believe that this will be a rare opportunity for all buyers to acquire Hereford cattle at bedrock values. Mr. Sotham is without doubt the leading exponent of Hereford cattle, upon which he is an unquestioned authority. His father, the late Wm. H. Sotham, being the first importer of Hereford cattle to America. He is the acknowledged Hereford expert, and his integrity is unquestioned, and we urge our readers to take advantage of this occasion to found Hereford herds, or add creditable specimens to those already founded.

COOPER COUNTY, MO., NOTES.

W. H. STEPHENS & SON, proprietors of the Clover Leaf herd of Shorthorns, shipped two Scotch-topped Rose of Sharon yearlings to Mart V. Sparks of Davisville, California, Monday.

W. A. BETTERIDGE, proprietor of the Violet Green herd of Shorthorns, shipped over \$3,000 worth of Scotch Shorthorns from Pleasant Green, Monday. These were consigned to E. S. Donahay, Newton, Iowa.

COL. R. L. HARRIMAN returned home last week from Indiana, Ill., where he had been to take part in the dispersion sale of the Sandusky herd of Bates cattle. He was accompanied on this trip by Sam W. Roberts of Pleasant Green; W. B. Wallace of Bunceton, and J. F. Finley of Breckenridge. These gentlemen bought about 15 head of the best of the cattle and shipped them back to Missouri. The sale was a splendid success, the cattle being a choice lot, and selling for the nice average of \$256.

J. M. FREEMAN, proprietor of the Maple Grove herd of Shorthorns, attended the combination sale of Littrell, Keith, Stewart and Cottingham at Sturgeon, Boone County, Tuesday, and bought some good things to add to his already well-established herd. His purchases consisted of six head of cows and heifers of choice breeding, as follows: Roan Day, a Scotch-topped bull by Victoria Baron, with calf at side, by Mr. Littrell's Crickshank herd bull Scotland's Crown; Bracelet, a Scotch-topped Young Mary heifer, by the Crickshank bull, Lavender of Audrain; Roan Bloom, a

Horseman



Summarized, All's turf record is as follows: Winner of heats in 2:30, 45; heats in 2:16, 35; heats in 2:10, 17; as a 2-year-old she took a record of 2:30; at three of 2:16; at four of 2:10; at five of 2:07; and at six of 2:09.

"Dishonesty is no less opprobrious on the race track than in any other sphere of life," says the "Trotter and Pacer."

"When a bet is made it is obvious that one side must lose and one side suffer."

The man who backs his judgment on a horse race and suffers in silence when his judgment is proved at fault is the manly man.

The man who resorts to any methods of winning a race except winning it fairly, or, as in this case, to a cheating subterfuge of laying up a heat to save the money he has got in wrong, only brings reproach upon the sport."

Peter Stirling, 2:11½ by Baronmore, son of Baron Wilkes, winner of the Kentucky Futurity, for three-year-olds, is the fastest trotting gelding of his age wrestling that honor from the Californian, Who-Is-It, 2:12. He is a blood-like chestnut, with a strip in the face, one white ankle forward and two white hind stockings. He stands about 15½ hands and is described by one critic as "a fine trotter, with perfect action and conformation, wearing 8-ounce shoes forward and 6-ounce behind, quarter and shin boots forward, with ankle and shin protection behind."

The chestnut gelding Jerry W., 2:18, alias Guy, Thomas W. and Red Doctor, who was exposed as a ringer at Port Huron, Mich., where he started under the name of Brandon, and that has since been in the hands of the sheriff on an attachment by the American Trotting Association on a claim of \$650 for alleged illegal winnings, has been reprieved by Coronet Falk at the instance of Edward F. Grosse of Cleveland, who claims to have purchased the horse from his former owner, Felix Reynolds, now awaiting trial on a criminal charge of fraudulently entering the horse in the races.

Be careful of the horse's mouth. Men who jerk the reins because they are too hard to be sensible and humane should have a bit placed in their own mouths and have it jerked by some fellow who would enjoy giving pain, says Columbus. In breaking colts be very careful about the mouth, and never hit an animal that has a sore mouth while it continues sore. The mouth of the horse should be more frequently examined than usually is. Sometimes the teeth need attention, and occasionally it may be necessary to draw a tooth. It is by no means uncommon that the poor condition of a horse can be traced to some ailment of the mouth which prevents the proper mastication of food.

Chain Shot, the good son of Red Heart, that reduced his record to 2:06½ at Memphis, tying the race record of the year for trotting geldings, is an inbred Wilkes and a remarkably well bred horse. His sire, Red Heart, 2:19, was sired by Red Wilkes, out of the once champion two-year-old filly Sweetheart, by Sultan, that took a record at that age of 2:26½, and later reduced it to 2:23½. Sweetheart's dam was the famous Minnebaba, by Bald Chief, Chain Shot's dam Plue, by Kentucky Wilkes, 2:21½, was out of Vexation, by Mambrino Dudley, 2:19½, second dam Verona, by Volunteer, third dam by Hambletonian 10. This is the kind of a pedigree for a trotter and Chain Shot seems to be worthy of his breeding.

Government statistics show that the export trade in horses in this country has more than doubled in the last four years. There were shipped 84,722 horses into nearly every corner of the civilized world during the year ending June 30, 1900. The figures of the past year have not been made up, but they are known to be a little larger than 45,778 for the twelve months preceding that, 51,150 in 1898, 39,532 in 1897, 26,128 in 1896—a total for five years of close to a quarter of a million head, representing \$7,000,000.

It is likely that when the statistics for 1901 appear, it will be found that the total valuation of the horses exported during the five years will be \$35,000,000, and the number of horses sent out of the country will probably be at least 300,000 head.

The great success of the Memphis trotting meeting has inspired Mr. Billings to still further exploit the hospitable southern country, and next season we expect to see in the Southern Circuit in October and November as great meetings as we see in the Grand Circuit in July and August. A dispatch from New Orleans, under date of October 26, says a trotting track which will be second to none in America is to be built in that city by C. K. G. Billings. Negotiations have already been opened for the site of the new track, and it will be in readiness before the fall of 1901. A meeting of ten days duration will be given and the amount hung up in purses will be in the neighborhood of \$100,000. New Orleans will be the center of the fall circuit in the South, which will include Nashville, Memphis, and Dallas, Tex. Thus the harness game is extending south to the great gulf, embracing the entire continent.

Writing of the time-worn subject of laying up heats, "Veritas," in "Trotter and Pacer," says: "The judges at many of the Circuit meetings have permitted certain drivers to trample on the letter and spirit of section 5 of rule 27, commonly called the 'Simpson Rule.'

Such drivers have started their horses with the set purpose of laying up one or more heats, whether they got a good or bad start and without any just cause or reason. They have dropped inside the distance at their leisure, while the best of the field were being driven to win. It has been said that a driver should be allowed to win in his own way provided he was out to win in the end, and that the bettors on heats should be viewed as Schley did the Texas in the battle of Santiago—let the betting guessers of heat winners take care of themselves. But aside from the betting view, the spirit of sport is outraged. Suppose each and every driver of the best horses in a race were permitted to lay up heats at their own sweet will, and actually did go with such farcical racing for two or three heats, how tiresome would it be to the spectators? To lay up a tired horse after he has had a grueling heat is one thing and a fair thing to do, but to pull a fresh horse at the first or last of a race should meet with condign punishment."

Championships among harness speed horses, like the sands of the beach, are continually shifting. The champion records of one year or generation exist, only to give way to those which inevitably follow, and the leading sires and leading dams of harness speed are usually dethroned by others just about the time their admirers think them secure for all time to come. Only a fortnight or so ago the grand old mare Beautiful Bells appeared at the head of all great speed-producing brood mares, with ten standard performers to her credit, and hardly had the friends of her great family gotten through congratulating themselves on her marvelous accomplishments, when Soprano, by Strathmore, dam Abbess, by Albion, steps up on even terms with the daughter of The Moor, and Minnebaba, by Bald Chief, with an even number of standard-record sons and daughters. Thus the two became tied in point of number of performing produce, and the championship must be allotted on collateral points.

The feet of horses differ much in structure and quality. Some have feet that last them without wear to the end of life; others have feet which almost from birth are a source of trouble to keep them in condition for use without lameness. They are the most important of the different organs, for on them comes the severest strain. Some retain their natural toughness and elasticity much longer than others, while the feet of others part with moisture rapidly, and unless supplied occasionally by external means they become so powdery and brittle that it is with difficulty a shoe can be kept on them. A horse with white feet in front is most likely to give trouble. White hoofs are likely to be "cheesy." Water is a poor remedy, for, after evaporation, the hoof is left in a worse condition than before. One of the best dressings is said to be the following composition: Beef suet two parts; beeswax one part; tar two parts; honey one part; whale oil four parts. Mix and melt together over slow fire. Apply to sole and wall twice a week.

MISSOURI STALLIONS.

Editor RURAL WORLD: In your issues of OCT. 23 and 30 I notice that Messrs. Clement and Givens discuss the subject of Missouri stallions. I was much pleased to note the long list of splendid stallions in the state, but was sorry that my four-year-old stallion Norberry 33742 was not in the list. I feel quite sure that his individuality and breeding will justify no little attention. He is by Northern 2:13½, by Onward, first dam Blazeberry, 2:16½, by Roseberry, 2:15½, and he by Strathmore. As Onward is the leading sire of Soprano, which has ten foals, and every one of them in the 2:30 list, it would seem as though Norberry enjoys a rare distinction through his grand-sires to say nothing of the fact that Strathmore is the grand sire of Bumps, 2:03½, and Roseberry being the sire of Strathmore, 2:04½. I presume, too, that the wonderful performances of Northern and Blazeberry are still fresh in the memories of the horse-loving public.

That Norberry will reflect no discredit on his worthy ancestry is practically assured, as he has frequently shown better than a 2:20 gait after being handled by an amateur driver in all his work.

W. R. Carter, the veteran reinman of Mexico, Mo., drove Norberry for 21 days, and at the end of that time declared that he had "never handled a better one."

This seems very significant when it is remembered that Mr. Carter developed the high-priced Missouri gelding Sagwa, who has the reputation of trotting a half-mile in one minute flat.

The plain linseed poultice, which so many persons in charge of a horse (we will not call them stablemen) find a difficulty in making, is officially prepared by mixing gradually and with constant stirring four ounces of linseed meal with ten ounces of boiling water. When counter irritation is desired, as, for instance, in pulmonary diseases, half mustard and half linseed is the proportion sanctioned by authority.

The foregoing proportions and directions have been found to work well for the domesticated animals, but a stable tradition seems to require us to use bran in some quantity. It undoubtedly holds heat, but is disposed to dry rapidly. This is heat counteracted by mixing with equal proportions of crushed linseed, which is the "meal" of the Pharmacopoeia, but not the article sold by the grocer; the latter supplies a dry meal from which the oil has been expressed, unless asked for crushed linseed.

Poultries are made of boiled carrots, parsnips, swedes, turnips and other "roots," with medicaments in the way of oils, carbolic acid, Venice turpentine, poppy heads, etc. It is as true as ever that many are not aware of the value of these simple applications in abating inflammation, relieving pain, cleansing wounds and disposing them to heal. They are applications of the best kind continuation can be. In all inflammations of the foot they are very beneficial, by softening the horn hardened by the heat of

the foot and contracted and pressing on the internal and highly sensitive part. The above is quoted from Youatt. A modern writer fears the introduction of the syringic organism on a scale of bran which may insinuate itself into a prick or corn, and to obviate this danger advises us to discard the germ laden poultice boot in favor of boiled carpet, as a vehicle for a poultice. Perhaps one may make a fairly good guess as to which authority the common sense reader will defer.

There is room for improvement in the poultice boot, but nothing in its present construction to prevent pretty thorough distillation, with modern agents which will not produce destructive to the leather of which it is composed. Since it is the exception rather than the rule to find such an article in ordinary stables, we may have to improvise a bag made out of an old sack (custom permits us first to rot the bottoms out of, and then steal the remainder of the corn dealer's sacks).

Plenty of material should be allowed. Suppose a foot has to be poulticed, an amount of material should be employed which will wrap around the pastern, and allow us to pull a lame strap, or draw a cord tightly, without injuring the skin and leaving that half mark of the incompetent stableman—a white ring around the pastern.

Poultices to parts of the leg can be conveniently retained by pulling an old stocking over the foot, or by first building a foundation of tow and bandages from the hoof up to the part to be treated.

The "many-tailed" bandage, which is simply a piece of calico or other suitable material with the middle intact, and the rest cut into tail, will serve to retain a poultice round the throat, under the jaw in cases of strangles, and upon the poll or neck. A head-stall makes a useful foundation for attachment of a poultice anywhere about the head, and upon the withers the rug and surcingle or roller, or ordinary stable bandages a few inches apart, and passed round the body, will keep the cataplasma in the place desired. To prolong the effects by retaining heat, and to save damage to clothing, sheets of grease-proof paper, such as butter is sent out in, are found very useful—Harold Leeney in the London Live Stock Journal.

OF VALUE TO HORSEMEN.—Do you turn your horses out for the winter? If so, we want to call your attention to a very important matter. Horses which have been used steadily at work, either on the farm or road, have quite likely had some strains which lameness or enlargements have been caused. One person may have new life needed to be infused into their legs. Gombault's Caustic Balsam applied as per directions, just as you are turning the horse out, will be of great benefit; and this is the time when it can be used very successfully. One great advantage in using this remedy is that after it is applied it needs no care or attention, but does its work well and at a time when the horse is having a rest. Of course it can be used with equal success while horses are in the stable, but many people in turning their horses out would use Caustic Balsam if they were reminded of it, and this article is given as a reminder.

There are concise directions given in the Pharmacopoeia for the preparation of some half dozen kinds of poultices, crumb bread and wheaten flour taking its place as a base in others. Powdered wood charcoal is mixed with one catalpa, and is found in practice particularly suited to ulcerated cracked b-sels, where a foul smell accompanies the discharge. The Pharmacopoeia proportions are half an ounce of charcoal, two ounces of crumb bread, one and a half ounces of linseed meal, and half a pint of boiling water, with directions to "macerate the bread in the water for ten minutes near the fire, then mix and add the linseed meal gradually, stirring the ingredients, that a soft poultice may be formed. Mix with this half the charcoal, and sprinkle the remainder on the surface of the charcoal."

The hemlock poultice is one of the good things crowded out of our memories and practice, but admirably calculated to ease the acute pain of a festered corn or pricked foot, or bad "tread" or quittor. It is made of hemlock juice, evaporated to half its pharmacopeial consistency, and melted with linseed meal and boiling water.

The yeast poultice finds official recognition in our national book of remedies, and in veterinary practice is chiefly employed to promote pus formation and "pointing" in the abscess of strangles, or in other cases where it is desirable to induce deep-seated matter to come to a point, and permit of evacuation by the lance.

The plain linseed poultice, which so many persons in charge of a horse (we will not call them stablemen) find a difficulty in making, is officially prepared by mixing gradually and with constant stirring four ounces of linseed meal with ten ounces of boiling water. When counter irritation is desired, as, for instance, in pulmonary diseases, half mustard and half linseed is the proportion sanctioned by authority.

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The yeast poultice finds official recognition in our national book of remedies, and in veterinary practice is chiefly employed to promote pus formation and "pointing" in the abscess of strangles, or in other cases where it is desirable to induce deep-seated matter to come to a point, and permit of evacuation by the lance.

The plain linseed poultice, which so many persons in charge of a horse (we will not call them stablemen) find a difficulty in making, is officially prepared by mixing gradually and with constant stirring four ounces of linseed meal with ten ounces of boiling water. When counter irritation is desired, as, for instance, in pulmonary diseases, half mustard and half linseed is the proportion sanctioned by authority.

The foregoing proportions and directions have been found to work well for the domesticated animals, but a stable tradition seems to require us to use bran in some quantity. It undoubtedly holds heat, but is disposed to dry rapidly. This is heat counteracted by mixing with equal proportions of crushed linseed, which is the "meal" of the Pharmacopoeia, but not the article sold by the grocer; the latter supplies a dry meal from which the oil has been expressed, unless asked for crushed linseed.

Poultries are made of boiled carrots, parsnips, swedes, turnips and other "roots," with medicaments in the way of oils, carbolic acid, Venice turpentine, poppy heads, etc. It is as true as ever that many are not aware of the value of these simple applications in abating inflammation, relieving pain, cleansing wounds and disposing them to heal. They are applications of the best kind continuation can be. In all inflammations of the foot they are very beneficial, by softening the horn hardened by the heat of

assert that at present I have no horses for sale at any price, but am impelled by an honest desire to encourage the breeding of man's best friend. Respectfully,

GEO. M. TIFFANY,
In Troy (Mo.) Free Press.

WATERING HORSES.

To the casual observer and the ordinary horse owner it will appear to be a very inappropriate matter to speak of watering horses. Almost any farmer knows enough to water his horses with great regularity and not to water them when in a heated condition, says the "Iowa Homestead." This is all granted, and yet a great many farmers pursue the practice of watering horses at unseemly times. It is a common practice among farmers to water the teams upon coming out of the field at noon, or night, and again after the meal at noon. We have known farmers so particular about watering horses after dinner that they would almost send a hired man or a boy back who had neglected to offer a team water. We have studied this problem for years and have practiced watering horses in a certain way.

We never had a horse hurt by drinking water, even when quite warm, although we know there is some danger in doing so. We have always watered horses when warm, letting them take a few swallow, then holding them away from the hoof up to the part to be treated. The "many-tailed" bandage, which is simply a piece of calico or other suitable material with the middle intact, and the rest cut into tail, will serve to retain a poultice round the throat, under the jaw in cases of strangles, and upon the poll or neck. We have known farmers so particular about watering horses after dinner that they would almost send a hired man or a boy back who had neglected to offer a team water. We have studied this problem for years and have practiced watering horses in a certain way.

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Home Circle

THANKSGIVING.

Hushed as the silence that follows praise is the mystic peace of the autumn haze, That soft and mellow and touched with gold, Wraps hill and vale in its lustrous folds; Here and there by the sunshine kiss'd To violet, amber and amethyst, Or blown by the breath of the breeze away From the meadows shorn and the woodlands ray.

We've heard the last of the wild bird's call, We've watched the loose leaves flutter and fall; There are empty nests on the naked boughs. There's a dream of snow on the mountain's brow; The summer's work is over and done. And the brown fields sleep in the waning sun; Fruit of the harvest is gathered in. And grain is heaped both in barn and bin.

And up from the homes that are richly bled, Dowered with abundance and crowned with rest, And up from the hearts that in highest mood,

The lowest bow in their gratitude, Anthems arise to the Giver of all, Whose love beholds if a sparrow falls— Those matchless grace on the earth hath smiled.

Like the parent's look on a cradled child.

From near and far as the household bands, Cluster and clasp in the best of lands, That eye in the wash of the silver sea Hears the lofty music of liberty. That still where its mighty rivers flow See peace and learning and progress grow—

From near and far to the God above Are lifted the strains of a nation's love.

And even from those who must sit apart In the glimmering twilight of the heart, Whose hopes have faded, whose dear ones lie With pale hands crossed 'neath the autumn sky.

Because there is healing after strife, And a conquering faith in the better life— From the sad and the worn, as the last leaves fall,

There ascends a psalm to the Lord of all. —Margaret E. Sanger in Harper's.

Written for the RURAL WORLD.
PINE BURR AGAIN.

I heard a questioning voice "Pine Burr where are you?" Where the hill slopes gently from the sunrise, abruptly from the north, where a range of low hills, beautiful with autumnal coloring, with the sun shining on the red and golden tree tops, leaving rich purple shadows where it does not touch, shutting out from view (for all one might know) the whole southern country, in the small rocky valley dwelt Pine Burr and her dearly beloved family.

The earth is brown and barren. Desolation reigns supreme. As Napoleon Bonapart said: "Fatality upon fatuity; calamity upon calamity," and the kind editor actually praised me for being brave; but oh, dear friend, I have shown the white feather this dreadful summer; wishing the summer would end and dreading the winter; should it be severe. Some writer said that if you wanted to know of the drought, consult the weather report where it was all told. Is it true, think you? Does it tell how many a poor fellow, depending on good crops and stock to pay him out this year, will now by the circumstances he could not control, has to sacrifice stock, borrow money and mortgage his home and perhaps lose it? Does it tell of the privation and poverty little children and women will have to suffer perhaps for years to come? Does it tell of the young girl that must give up her heart's desire, and miss the schooling she had been promised, perhaps thereby altering her whole future life? Does it tell of the worry caused in happy homes, where it would take, God knows, so little to make them happily contented?

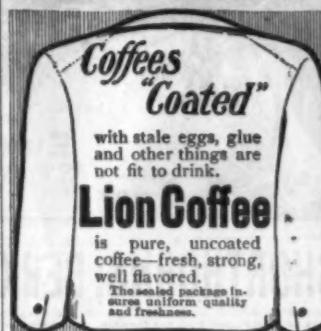
Oh, you in happy, comfortable homes, be charitable this winter. Let no warm clothing stay in darkened closets or attics. Do not be too severely critical and question the merits of those that need. This will be a hard winter, doubtless, for many to get through, and it will be the time to lend a helping hand. It will be a golden opportunity to add stars to your crown. Interest yourself kindly in your neighbor's affairs and find out the reason the children are not attending school. Is it lack of clothing and funds to procure the needed shoes? Many of you could clothe a whole family of children, with such good, out-of-fashion clothing you have stowed away. Grown person's underclothing, though worn will make over nicely for children. A package or two of dye, the ready scissors, nimble fingers and presto, what a happy heart beats under that warm jacket. A woman's taste, delicacy and kind heart, knows how to give and not offend. How many of us under that weather report that told it all will sing

Many days have you lingered Around my cabin door; Oh, hard times come again no more.

In these first school days how we do miss the children. How quiet the house seems with no childish voices to break the monotonous silence. No doll hangs with head crazily down, off the nicely arranged bed and as I step out on the clean sweep porch, I do not find a row 't delicious mud pies, baking on its tiny side. Yes, everything is tidy and disorder is not known, but how thankful I am that the reprieve is only for a few hours. If the childish voices were stilled forever, if they should return never more—Oh! No! No! I am not poor but rich. Rich in the love of little children. When I fold my darlings to my heart, then indeed I am thankful for an unbroken family circle.

I have wanted to tell you how nice it was to have the Home Circle brightened by Ina May's pleasant face, and not long ago Ella Carpenter's good face beamed upon us. Let others that possibly can contribute their photos, add to the attractiveness of our interesting page—but how about the nice things written underneath, kind editor?

Would it do to say "she is a good



Written for the RURAL WORLD. WHAT HAVE I TO BE THANKFUL FOR?

In many rural homes this Thanksgiving season will this query be made, if not verbally, at least down in the heart. No one realises more than the writer how many disappointments are recorded because of the drought and the shortage of crops. With some even food will be the plainest and humblest fare, and there will be a struggle to get through the winter, if it be severe, and blessing from a human standpoint does seem to be scant; yet is there nothing to be thankful for?

A man consecrated to charitable work in a large city recently related to the writer the following story:

An intelligent woman, whose hair has been silvery by 28 winters of life, came to this worker among the city's poor for advice. She was a clergyman's daughter and had married a capable man, who was a musical director. They had three sons. The husband died several years ago. This dear old woman came to this charitable gentleman with her sad, sad story. Her sons were all addicted to the drink habit and the winter season was approaching and she was without sufficient food and clothing to protect her from the cold, and she asked that she might be taken to the poor house until spring, hoping to be able to return to her home then and try to help her boys to become honorable men—the mother heart still longing to shield and aid her children. One of these sons was earning \$30 per week, but it all went for drink—nothing left for the poor old mother, who still loved her boy.

So many we would like to hear from again. Surely all are not as busy as I, the children with the whooping cough and down on their back in general.

Now when we do come we don't want to occupy the whole page but must thank the kind editor for those interesting notes about the Pan-American. As we could not go ourselves, that was next nearest to it, and you may be sure every word was read with pleasure by Wright Co., Mo. PINE BURR.

Written for the RURAL WORLD. MORE ABOUT ROSA AUTUMN'S FLOWERS.

I want to tell the Circle readers of an experience I had last summer—a year ago. "Angle" (my daughter-in-law) bought some choice flower seeds. One day she said to me: "I believe I will plant the seeds out in that little bed, where the worms have killed the evergreens." This bed was in the yard apart from any other bed of flowers. The little evergreen was surrounded with little bulbs that bloomed in the spring. This was a very pretty bed, with the evergreen growing in the center. Now as the little tree was dead Angle thought that would be a nice place for her choice flowers to grow. She prepared the bed and planted the seeds. They came up all right and grew nicely. The bed was directly in the way when coming from the front gate and going around to the back porch, and now that the little evergreen was not there to prevent their going over the bed, it was natural that everyone should pass over it, as the plants were small yet, and did not have the appearance very much of a flower bed at that time. The bulbs were all out of bloom. Well, what could Angle do to protect her nice plants from the feet of those that came in over them? Most of them "had no eye for flowers anyway."

"I'll tell you what let's do," said I to Angle one day. "We'll cut off some of those rose bushes and stick them in the bed around your flower plants. We can push the rose bushes down so firm in the round that the people can not push them over, and put them in so thick they can't go over or through them, and the rose bushes need pruning, anyway."

We followed this plan, and it worked out all right, for everyone had to go around the flower bed or rose bushes.

The surprise and astonishment of us both, some of those bushes took root and grew nicely, and have been in bloom all summer. Angle says they grew because they were hers. Of course they were hers, but how they came to grow is something I could not understand, as I have tried often to have cuttings grow of these same roses, but never could get one of them to take root. The past summer I cut off several limbs and pushed them deep in the ground by the porch on the north side, where they got very little sun early in the morning and several of them have taken root or appear to have done so, as they seem to be growing all right. I will leave them there until next summer, only protecting them from too much cold and dampness. I will tell you if I am successful with them.

My roses have always been a success, but I never could get them to grow from the cutting until this "happened so," but I shall keep on trying now, as I can't have too many rose bushes to suit me.

Through the long hours of the night, amidst the darkness, only illumined by the flickering light of the lantern, they delved and a large hole was excavated. The dawn of morning was breaking in the east and yet they had failed in securing the fabulous wealth they so earnestly coveted. They returned to camp and another day was utilized in resting.

The next night the same scene was enacted. They labored in vain. As the dawn of morning was breaking they secreted their tools, returned to their wagon and departed for a neighboring village, re-created for a few days, obtained a store of supplies, returned to the Hollow and renewed their labor in various localities, but always with the same result—failure to find the desired treasure.

After a week of unremunerating toil, they abandoned the undertaking as hopeless and moved away to other vocations, sorely disappointed in a rude awakening from a bright dream of riches ample sufficient to provide them in luxury for life. Similar attempts have been made in larger and smaller magnitude and much labor expended and expenses incurred to unearth the treasure said by tradition to have been hidden away in the Hollow, but none has ever been found.

Effingham Co., Ill. DYPE.

GRATITUDE.

I hasn't got no turkey, an' I hasn't got no cash;

An' de grocery wouldn't 'trus' me even if I got so rash

As to try to run in debt. An' yet yoh uncle isn't blue,

He's smilin' jes' as usual, an' a meanin' of it, smilin'

Case matters ain' so worse. Dey's about as bad as dey kin be,

I'm lookin' to de future, whah my hopes dey shinnin' an' flin'

I'se feelin' mighty thankful fo' the things Ise gwinter git.

Perhaps it will be turkey, an' perhaps it will be duck,

An' mebbe 'twill be 'possum if I has a special luck.

It's wonderful excitin' to be guessin' dis-a-way,

'Bout how you're gwinter celebrate on nex' Thanksgiving Day.

It might be jen' plain chicken, or a po' chop fryin' slow,

An' it might be nuffin' tall fur all I'se able fo' to know;

But I doesn't let dat skeer me, ca'se it hasn't happened yit.

An' I feelin' mighty thankful fo' the things Ise gwinter git.

—Washington Star.

Liquid Extract of Smoke.

I hasn't got no turkey, an' I hasn't got no cash;

An' de grocery wouldn't 'trus' me even if I got so rash

As to try to run in debt. An' yet yoh uncle isn't blue,

He's smilin' jes' as usual, an' a meanin' of it, smilin'

Case matters ain' so worse. Dey's about as bad as dey kin be,

I'm lookin' to de future, whah my hopes dey shinnin' an' flin'

I'se feelin' mighty thankful fo' the things Ise gwinter git.

Panned Chicken.—Dress young fowls and split down the back, flattening but not separating the halves. Place in a roasting pan in a hot oven after sprinkling with salt, pepper and dredging with flour. Dot with bits of butter and roast until well done and brown, basting from time to time as needed. Remove the fowls, brown the fat remaining in the pan and add sweet cream to make sufficient gravy, thickening with flour stirred

Fluid, Put on Like Paint.

Messrs. E. Krauser & Bro., Milton, Pa., have succeeded in liquefying hickory wood smoke, so that meat can be cured at home in a few hours.

Smoke from hickory has a peculiar property that can not be obtained from any chemical process or from burning any other substance. It not only perfectly cures meat, but gives it a sweetness and flavor that is peculiarly

its own and perfectly wholesome. But unfortunately hickory is not so common or abundant that every one may have enough to smoke a batch of meat days at a time. There is plenty of Krauser's Liquid Extract of Smoke, however, and it will give even better results than the smokehouse, because it can be put on uniformly. In using Krauser's Liquid Extract of Smoke, each piece of meat may be treated to suit its own conditions—thin or thick coat, as the need may appear.

The cost of labor in smoking meat with Liquid Extract of Smoke is very slight.

Liquid Extract of Smoke gives such a fine flavor to meat that every dealer will give you a better price—if you can be persuaded to sell any of it at any price.

Full information will be sent free on application to E. Krauser & Bro., Milton, Pa.

Sweetening vs. Wheat.

The tendency of many feeders is to buy the cheaper article. Such feeders are generally judging the value of the feed by the bulk, while A. Shirer in the "National Stockman,"

PA.

Pain-Killer

Cures Coughs, Colds, Sore Throat, Croup, Diaphoresis, Rheumatism and all Winter complaints. It

Kills Pain,
Internal or External.

There are many kinds of pain, but there is only one Pain-Killer.
Keep it by you. Beware of imitations. Buy only the genuine.—*Ferry Davis.*

Sold Everywhere. \$6 & 10c per bottle.

RUPTURE
Quickly and Cured

NO CUTTING. NO PAIN. NO DANGER

W. A. LEWIN, M.D.

604 Washington Ave., St. Louis, Mo.

MYSELF CURED I will gladly inform any one who has been troubled with COCAINE, MORPHINE, OPIUM & LAUDANUM, of a never-failing Harmless Home Cure. Address Mrs. Mary Baldwin, Box 1212 L, Chicago, Ill.

SHROPSHIRE RAMS,
all yearlings, for sale; also my stud rams for sale or trade for one as good.
Address L. G. JONES, Tewards, Ill.

MERINOS—American and Delaine.
Greatest World's Fair Winners. Best purpose sheep 100 fine broad ewes, sheared from 16 to 20 lbs. at \$5.00 for quick sale. Extra rams.
L. E. Shattuck, St. Louis, Mo.

South Down Rams and Berkshire Pigs.
Either sex. Individual merit and choice breeding my motto. Stock sold worth the money. Call or address C. A. McCUE, Auxvilles, Mo.

Active Farmers

WANTED to sell an article every farmer needs. No canvassing; will not interfere with your regular work; stay at home and your customers come to you. Write for particulars.

BLAKE BROS., BOX 8, Salesburg, Michigan

FOR SALE some good last fall male pigs and crop of spring pigs, a nice herd, and a few ewes and lambs, good condition, and the most fashionable breeding. Will sell at reasonable prices and be glad to hear from any one wanting such stock.

H. W. MILLER, Huntsville, Randolph Co., Mo.

PRIZE WINNING CHESTER WHITES of both sexes, and any age, bred and for sale by J. M. KETCHAM & SONS, LOVE LAKE, MO.

IMPROVED CHESTER WHITES of both sexes for sale. 1st prize a call for Mo. State Show as well as four other prizes, call or write H. RAUSCHER & SON, ASHTON, MO.

BERKSHIRES.

Berkshires and Shorthorns. Large English Berkshires, pigs per, \$15.00. Two extra good shorthorn bull calves. Write me for prices. J. E. BURGESS, Macdonald City, Mo.

Walnut Grove Herd Big breed English Berkshires. Some Choice Spring hogs for sale. Results for service.

H. R. JACKSON, Prop., Benton, Illinois.

LARGE ENGLISH BERKSHIRE hogs and pigs a pig of either sex; best of breeding. B. P. Chickens; White Turkeys. G. W. MCINTOSH, Monett, Mo.

25 LARGE ENGLISH BERKSHIRE hogs and pigs a pig of either sex; best of breeding. B. P. Chickens; White Turkeys. G. W. MCINTOSH, Monett, Mo.

175 LB spring hogs ready for service for \$3.50. They are eligible to record. Big, boned, growthy fallows. Satisfaction or your money back. Gills same kind and same price. L. A. Spies, Breeding Co., St. Jacob, Ill.

VIVION & ALEXANDER, FULTON, MO.

Breeders of the best strains of Poland-China hogs. Registered Jersey cattle and Plymouth Rock chicks. Young stock for sale at all times.

POLAND-CHINAS. Growthy, heavy-boned, March and April hogs and sows, sired by Ch. King U. S. 14899, and out of gilt-edged dams; also Angus cattle. J. F. VIBBERING, Box 15, Meiville, Illinois (Near St. Louis).

WALNUT VALLEY FARM HERD of Poland-China hogs. Fall pigs a pig of leading strains. Stock cordially invited to inspect stock before buying.

HERBERT W. WALLEN, Monett, Mo.

POLAND-CHINAS. Gilt-edge pedigree merit combined.

E. L. OGREN, Carthage, White Co., Ill.

DUROC-JERSEYS.

DUROC-JERSEYS and W. P. ROCKS.

Choice young stock for sale. Address.

R. S. THOMAS, B. F. D. No. 4, Carthage, Mo.

BIG 2 HERDS Duroc-Jersey and Chester White Hogs. Top individuals. No screen-creased. Write for latest prices.

J. E. HAYNES, Ames, Ia.

Duroc-Jersey and Berkshire Hogs! Breeding. Satisfaction guaranteed or you may return as my expense.

S. C. WAGENER, Pana, Ill.

ANGORA GOATS FOR SALE!

I have about 800 recorded, high class and medium class does and a few old fashioned goats that I will sell at a reasonable price. I am in a position to fill any orders satisfactorily from any standpoint. Address W. T. McINTIRE, Agent, Kansas City Stock Yards, Kansas City, Mo.

FINE BERKSHIRES

Of the best families at farmers' prices. Write for what you want, or, what is better, come and inspect the stock.

W. H. KER, Prair du Rocher, Ills.

Cedar Lawn, E. H. Rodgers, Proprietor.

Breeder of registered Shropshire Sheep, Poland China Hogs and Shorthorn Cattle. Also Mammoth Bronze Turkeys and Barred Rock Chickens.

10 EXTRA GOOD FALL HOGS. CHIEF PERFECTION 24 blood. 16 Spring gilts sired by I KNOW PERFECTION 5016. One of the best Perfection yearling hogs living. These gilts are the equal in breeding and individuality of any like number in any herd in central Illinois. They will be sold at great bargains if taken soon. Satisfaction guaranteed or you may return as my expense.

C. E. VIGAL & SON, Rural Route No. 1, Glenarm, Ill.

ROSE HILL HERD

of DUBOC JERSEY HOGS—Gilts bred for early spring farrow and boars ready for service, also a lot of thrifty, growthy Ang. & Sept. pigs all from large prolific hogs. Price reasonable.

S. Y. THORNTON, Blackwater, Mo.

The Pig Pen

EARLY FATTENING OF HOGS.



A Good Wagon
begins with good wheels. Unless
you have a fitter, IF YOU BUY THE
ELECTRIC STEEL WHEEL
Box 74 QUINTON, ILL.

PIGS FOR PORK AND BREEDING PURPOSES.

As regards care and feed for brood sows as well as for shoats, I let the sows and shoats that are over four months old run where they wish. They work through the woods and in the orchard more or less of the time. They will have places where they will root down to the ground and several of them will lay in these places, which will be quite low, so that the wind does not hit them. When snowstorms come they will go to these spots and all lay down. When the storm is over they will come out and the snow will be thawed out so that their nests are on the earth, says B. C. Newell in "N. E. Homestead."

I get each sow into the barn one week before she is to farrow. Then she has a pen 8 by 12 feet, with a fender around the outside 10 inches from the floor and eight inches from the sides. This is so that when she lies down she will not pinch her pigs against the sides, they slipping under the fender out of the way. After the pigs are weaned she has a chance to go outdoors or in until she will finally leave the barn and work off with a pen or lot alone.

I give them dry grain of equal parts by weight of bran, hominy meal and middlings. This is flung down in piles so that they can get to it. There is spring water that they can get to any time they wish. They are fed grain twice a day. If I have roots I feed them twice a day. I give other grains once in awhile for a few feeds, as I think the pigs like a change. I also see that they have all the salt they want. My idea is that the feed on which the pigs will keep in the most healthy condition is the most economical. As I am raising my swine wholly for breeding purposes, I presume that my feed would not be the best for farmers to use when they are fattening their hogs.

I have had good results from barley and corn meal for fattening hogs. I think that when a pig is intended for fattening the most profitable pork can be made by putting him in a small pen when weaned and feed to make 150 or not over 200 pounds of pork, just as quick as possible. Probably the pig that will dress 150 pounds is more profitable than he would be to keep him to dress 200 pounds. This is the best way from a financial standpoint, it is a question whether that pork is as healthful as it would be had the pig had a chance to run at pasture and get more exercise, in other words lived more to make the same amount of pork than it would have panned up the pig, but those who ate him, I think, would not have any larger doctor bills to pay. Most people think the hog a dirty creature at best, and that he will thrive in a small, dirty pen better than in any other place, and will eat anything that is given him, no matter how unwholesome it may be. In short, I believe the people in general do not rightly understand the hog. I sell most of my pigs alive at about 10 weeks old. All good, straight, thrifty pigs go for breeding purposes, the rest are fattened.

If people would take more pains in fattening their pork, not feed unwholesome food, but give them good, palatable food and plenty of fresh water, of which hogs will drink a lot if given a chance, and plenty of exercise, good roomy pastures to run in and take pains to raise good, healthy pork, they could soon make a market, where they could get a much higher price for their pork than others get.

I believe there is nothing more profitable to the farmer than raising pork at the prices they have been getting for the past few years. I also believe that every farmer should keep at least one brood sow and raise his own pigs, and as many more sows as he can.

I am selecting breeding stock get nothing but the best. Many believe if they can get something that is a thoroughbred animal that is all there is to do. Do not be so simple. While I am a strong believer in good pedigrees, I want the individual to go with it. With all the pains one can take in breeding stock he will get occasionally a runt animal, and if he only understood it he never would sell such an animal, no matter how much or how little he could get for it. Such a sale is sure to hurt him sooner or later.

The party that will buy such an animal, just because he can get it cheap, and then go to raising stock from the same and telling everybody that it is from Mr. A's noted herd, one of his best, as do we are most always sure to do, will derive no benefit from so doing. Insist on getting the best, regardless of the cost, and never sell a poor animal for a good one.

I breed the large English Berkshires for several seasons. I believe they are the most profitable pork producers. They can be fattened at any age or if kept for any length of time they can be made to weigh from 500 to 1,000 pounds. Their pigs are strong and vigorous at birth and are less liable to mishaps than other breeds. Their flesh is of the highest quality, containing more lean meat than other breeds. They are very strong and active, being less liable to disease than other breeds. They run more uniformly and build than others. While I breed the Berkshires I believe anyone going into swine breeding will do better and have the best success if he will select the breed he likes best, as he is more apt to take more interest in his work, and be better satisfied than he would if he took a breed that someone else had made a success with, but which he did not like. So select the breed you like, make a study of it and raise it as near to the laws of nature as you can.

It is but recently that general farmers have had their attention called to gluten feed and germ oil meal, but the experimental stations have investigated the matter and tested it thoroughly, with the results that insure the recognition of this economical feed by farmers, especially since the price of corn has advanced to such a high point. High priced corn necessitates a careful study on the part of every farmer, as the feeding proposition is one of the chief problems that has to consider.

Gluten feed and germ oil meal are excellent and profitable feed in dairy as producers of rich milk, and many of the up-to-date dairymen are using it extensively, while the feeders of sheep are handling it on a larger scale.

While this is a feed and not a medicine and is sold at feed prices in contradistinction to medical prices, yet at the same time it is a natural balanced feed that enables the functions of the stomach to properly assimilate and produce healthful, natural actions. It is coming into quite general use by hog men, who are reporting most excellent results.

We can recommend feeders to investigate this and test it, as each man will then decide for himself the advantage and benefits to be derived from feeding these articles of food.

Make a change from one kind of food gradually. A sudden change often upsets the digestive organs.

FATTENING HOGS ON WHEAT.

It is an old saying that necessity is the mother of invention, and it is fully illustrated among many farmers in the case of fattening hogs, says "Texas Stockman." It has always been held that corn is an absolute essential for fattening hogs, and without it no one could entertain the thought of raising hogs. Unquestionably corn is a very high factor in fattening hogs, but that it is an absolute necessity has been disproven by the conditions now confronting the farmer. Many farmers this year have failed to raise any corn, and of these in Hamilton County a large number are fattening their hogs on soaked wheat, which they have left from last year's crop, and from all appearances they are fattening quite rapidly.

THE BREEDING BOAR.

Every swine grower that keeps as many as four sows should also keep a boar, unless his farm is near some swine breeding establishment, where he can have the use of the males at any time he wishes, and at a cheaper rate than to keep one on his farm, writes John M. Jamison in the "Ohio Farmer."

It is very unsatisfactory to hire a boar from a neighboring farmer, still more so, as a rule, to borrow one. The best arrangement is to own one and keep him on the farm; the most unsatisfactory way of all is to own one and make a custom of loaning him to everybody that comes. The Spaniard is born tired and the first precept he is taught is, "Never do to-day what you can put off till to-morrow." To-day the hogs don't need a shelter, and to-morrow the loose planks about the place will be frozen in the mud under a foot of snow, and the straw stack will be wet and frozen beyond penetration. Then you can't fix the shelter, don't you see? You know, we know, everybody knows, that to attain success in life one should take advantage of all the opportunities in reach. You raise hogs for profit. Then why not squeeze out of the business all the profit there is in it? Simply and solely because it is so easy to take a rest between times and allow the illusion of hope to suggest that there will be another chance for you. If what is herein said should result in one or more hogs securing shelter where they otherwise would not, and be of more value than if kept in a pen or lot alone.

These times there is no excuse for a farmer to own or use a male of poor quality or uncertain breeding. With a good many it seems to be a recommendation to the animal to have as many breeds in his make-up as possible—the more cross-breeding in his pedigree the better. The result of this can only be disastrous. In his progeny more of the evil properties of the breeds represented in his blood may crop out than of the good. The poor qualities are more apt to show in the offspring than the good, as the tendency towards degeneration is always strong and must be counteracted with great care and judgment.

To get a pure-bred male of good quality, such as will give the farmer the best kind of feeders, it is not necessary to pay the high prices paid by professional breeders. Uncertainty as to his breeding that may debar him from registry will not militate against his usefulness on the farm. The main thing for the farmer is to know that he is pure-bred and not a cross of two breeds. At swine sales often, boars that are as good as a pork grower need wish for are sold for about what they would bring on the market as fat animals. Such cases give the farmer opportunity to get good blood at a price which he cannot complain.

The boars on many farms are discarded by the time they reach their prime, some before this time. The farmers that follow this practice make a mistake, as they do not get the best use of the boar, they do not retain him till he is capable of doing his best work. The progeny are not what they should be, lacking in many desirable qualities, vitality, etc. The season is now here when every farmer that has not a boar should not put off getting one any longer. It usually takes longer to secure what is needed in this line than is expected, hence it is well to commence in time. If within reach of swine sales it is well for the farmers growing hogs to attend them. I have seen good boars sell at such a sale to farmers at their own price. Because their pedigree was not gilt-edged or for some other fancied defect, professionals did not want them. Still for farm use they were all right. Remember, the point is to secure what is needed in the animal of good form and thrifty. Then treat him as half or more of what he gets.

WHEN HOGS WERE LOW.

The current high prices for hogs naturally set people to thinking about how low they have sold during the past 24 years. From the following compilation by the "Live Stock World" it will be seen that prices have been pretty low at times.

The lowest average price at which heavy hogs sold during each month of the past six years was as follows:

1901—January	\$5.20
1900—January	4.55
1900—February, March and June	3.80
1899—December	3.40
1897—January and December	3.35
1896—September	2.90
1896—December	3.25
1895—December	4.45
1894—December	5.10
1893—December	4.00
1892—March	3.50
1891—February	3.50
1890—December	2.50
1889—December	3.25
1888—December	5.20
1887—January and October	4.70
1886—November	2.80

